

REMARKS

Claims 1-62 are pending in the subject application.

Claims 37-49 are withdrawn from consideration.

The Applicant acknowledges the indicated allowability of claims 1-36 and 56-62.

Claims 50-55 stand rejected.

Please cancel claim 50. Claim 51 has been amended.

Rejection under 35 U.S.C. § 102(e)

At paragraph 2 on page 2 of the subject Office Action, the Examiner rejects claims 50-55 under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent Application Publication No. 2005/0212703 to Fiore, et al. ("Fiore") or U.S. Patent Application Publication No. 2004/0259565 to Lucidarme ("Lucidarme"). Claim 50 has been cancelled, and claim 51 has been amended. Neither Fiore nor Lucidarme disclose, teach or suggest each and every element of claims 51-55. Thus, the Examiner's rejection is improper and must be withdrawn.

Claim 51, as amended, recites:

A method for determining the geolocation of a transmitter which emits a signal received by a receiver with a known location and determining the angle of arrival of the received signal, comprising the steps of determining a higher-order statistic of the received signal and estimating the angle of arrival as a function of the higher-order statistic, wherein the higher-order statistic is a fourth order cumulant.

(emphasis supplied).

Fiore teaches a method for determining the angles of arrival of multiple simultaneous co-channel signals received at a P-element receiver array. The method comprises receiving multiple co-channel signals at the array, sequentially forming mixtures of the received co-channel signals using mixture weights, and forming data cumulants based on the mixtures. Appropriate degrees of freedom are searched including a set of possible cumulants associated with the array to establish a best fit between the formed data cumulants and the possible data cumulants to thereby determine angle of arrival estimates of each of the received co-channel signals. (See Fiore, paragraphs [0007], [0011]). However, there is no disclosure, teaching or suggestion in Fiore of determining the geolocation of a transmitter.

Lucidarme teaches a method and apparatus for the management of a cellular network of a wireless telecommunications system. The invention of Lucidarme selects a value of a network operating parameter, cell operating parameter, radio resource management parameter or dimensioning parameter for the network and maintains a statistic of estimated mobile unit occurrence densities or estimated changes of mobile unit occurrence densities at locations in a cell. (See Lucidarme, paragraph [0008]). The means for maintaining the statistic comprises a means for determining the statistic from delays measured on in-bound voices and data calls and/or from angles of arrival measured on in-bound voices and data calls. (See Lucidarme, paragraph [0014]). However, there is no disclosure, teaching or suggestion in Lucidarme of determining the geolocation of a transmitter.

Determining the angles of arrival is fundamentally different than determining the geolocation of a transmitter. Determining an angle of arrival is the determination of a line of bearing. While angles of arrival may be useful for spatially separating incoming RF, an angle of arrival is by no means a determination of the geolocation of a transmitter. Thus, the rejection of claims 51-55 under § 102(e) is improper and must be withdrawn. Reconsideration and withdrawal of the rejection of independent claim 51 are hereby respectfully solicited.

Claims 52-55 are dependent upon independent claim 51. Claim 51 is in condition for allowance. Without regard to the additional patentable limitations contained therein, reconsideration and withdrawal of the rejection of claims 52-55 are hereby solicited.

Rejection under 35 U.S.C. § 102(b)

At paragraph 3 spanning pages 2 and 3 of the subject Office Action, the Examiner rejects claims 50-55 under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 6,021,334 to Aste, et al. (“Aste”). Claim 50 has been cancelled, and claim 51 has been amended. Aste does not disclose, teach or suggest each and every element of claims 51-55. Thus, the Examiner’s rejection is improper and must be withdrawn.

Claim 51 has been reproduced in the previous section for the Examiner’s convenience.

Aste discloses a method for transmitting a digital signal from a base station in the presence of interference sources and background noise. A frequency transposition opera-

tor may be calculated which transforms a calibration table into a transmission or reception calibration table. Statistical data are calculated on the basis of the signals received by a multi-element antenna, originating from a mobile and interference sources. For the transmitting mobile, an optimum set of spatial weighting is calculated on at least the basis of the statistical data. (See Aste, Column 2, line 30 – Column 3, line 20). The step of calculating the statistical data consists of calculating a matrix \overline{R}_{xx}^{f1} . (See Aste, Column 6, line 55 – Column 7, line 17). This calculation corresponds to a lower order statistic, a correlation, rather than a higher order statistic as recited in the claim. Thus, there is no disclosure, teaching or suggestion in Aste of each and every element of claim 51, as amended. The rejection of claims 51-55 under § 102(b) is improper and must be withdrawn. Reconsideration and withdrawal of the rejection of independent claim 51 are hereby respectfully solicited.

Claims 52-55 are dependent upon independent claim 51. Claim 51 is in condition for allowance. Without regard to the additional patentable limitations contained therein, reconsideration and withdrawal of the rejection of claims 52-55 are hereby solicited.

Applicant submits that the subject application is in condition for allowance. Applicant respectfully requests that the Office issue a Notice of Allowance.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Mark C. Comtois', written over a horizontal line.

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